

AMENDMENTS TO THE CLAIMS

The listing of claims provided below will replace all prior versions, and listings, of claims in the application.

Listing of Claims

1-87. (Canceled)

88. (Currently amended) A method of diagnosing infection in a human host patient by, or exposure of a human host patient to, a mycobacterium that expresses ESAT-6, which method comprises the steps of:

(i) contacting a population of T cells from the host patient with a high-sensitivity panel of eight peptides represented by, in which each peptide has a sequence at least 90% identical to one of SEQ ID NOS: 1 to 8 or has an end-terminal deletion of one of SEQ ID NOS: 1 to 8 such that each of SEQ ID NOS: 1 to 8 is represented in the panel, wherein each peptide in the panel retains the ability to be recognized by T cells of a T cell population which recognize a peptide having a corresponding exact sequence of SEQ ID NOS: 1 to 8, and

(ii) determining *in vitro* whether T cells of the T cell population show a recognition response to the peptides panel by detecting IFN- γ secretion from the T cells.

89. (Currently amended) The method of claim 88, wherein the panel further comprises one or more peptides selected from the group consisting of a peptide represented by having a sequence at least 90% identical to SEQ ID NO: 9 or having an end-terminal deletion of SEQ ID NO: 9, and which retains the ability to be recognized by T cells of a T cell population which recognize a peptide having a sequence of SEQ ID NO: 9; a peptide represented by having a sequence at least 90% identical to SEQ ID NO: 10 or having an end-terminal deletion of SEQ ID NO: 10, and which retains the ability to be recognized by T cells of a T cell population which

recognize a peptide having a sequence of SEQ ID NO: 10; and a peptide represented by having a sequence at least 90% identical to SEQ ID NO: 11 or having an end terminal deletion of SEQ ID NO: 11, and which retains the ability to be recognized by T cells of a T cell population which recognize a peptide having a sequence of SEQ ID NO: 11.

90-93. (Canceled)

94. (Previously presented) The method of claim 88, wherein the T cells are freshly isolated.

95. (Currently amended) The method of claim 88, wherein the T cells are isolated from ~~pre~~peripheral blood.

96. (Previously presented) The method of claim 88, wherein the T cell population comprises CD4 and CD8 T cells.

97. (Currently amended) The method of claim 88, wherein ~~presence of a mycobacterium that expresses ESAT-6 is determined in the host is~~ a suspected healthy contact who has been exposed to the mycobacterium.

98. (Currently amended) A kit for diagnosing infection in a human host patient by, or exposure of a human host patient to, a mycobacterium that expresses ESAT-6, comprising a high sensitivity panel of eight peptides represented by , in which each peptide has a sequence at least 90% identical to one of SEQ ID NOS: 1 to 8 or has an end terminal deletion of one of SEQ ID NOS: 1 to 8 such that each of SEQ ID NOS: 1 to 8 is represented in the panel, wherein each peptide in the panel retains the ability to be recognized by T cells of a T cell population which recognize a peptide having a corresponding exact sequence of SEQ ID NOS: 1 to 8.

99. (Previously presented) The kit of claim 98, wherein the panel is comprised in a single vial for simultaneous use.

100. (Previously presented) The kit of claim 99, further comprising an apparatus to detect recognition of the panel by a T cell population.

101. (Currently amended) The kit of claim 98, wherein the panel further comprises one or more peptides selected from the group consisting of a peptide represented by having a sequence at least 90% identical to SEQ ID NO: 9 or having an end terminal deletion of SEQ ID NO: 9, and which retains the ability to be recognized by T cells of a T cell population which recognize a peptide having a sequence of SEQ ID NO: 9; a peptide represented by having a sequence at least 90% identical to SEQ ID NO: 10 or having an end terminal deletion of SEQ ID NO: 10, and which retains the ability to be recognized by T cells of a T cell population which recognize a peptide having a sequence of SEQ ID NO: 10; and a peptide represented by having a sequence at least 90% identical to SEQ ID NO: 11 or having an end terminal deletion of SEQ ID NO: 11, and which retains the ability to be recognized by T cells of a T cell population which recognize a peptide having a sequence of SEQ ID NO: 11.

102-105. (Canceled)

106. (Currently amended) A composition comprising a high-sensitivity panel of eight peptides represented by , in which each peptide has a sequence at least 90% identical to one of SEQ ID NOS: 1 to 8 or has an end terminal deletion of SEQ ID NO: 1 to 8 such that each of SEQ ID NOS: 1 to 8 is represented in the panel, wherein each peptide retains the ability to be recognized by T cells of a T cell population which recognize a peptide having a corresponding exact sequence of SEQ ID NOS: 1 to 8.

107. (Currently amended) The composition of claim 106, wherein the panel further comprises one or more peptides selected from the group consisting of a peptide represented by having a sequence at least 90% identical to SEQ ID NO: 9 or having an end terminal deletion of

~~SEQ ID NO: 9, and which retains the ability to be recognized by T cells of a T cell population which recognize a peptide having a sequence of SEQ ID NO: 9; a peptide represented by having a sequence at least 90% identical to SEQ ID NO: 10 or having an end terminal deletion of SEQ ID NO: 10, and which retains the ability to be recognized by T cells of a T cell population which recognize a peptide having a sequence of SEQ ID NO: 10; and a peptide represented by having a sequence at least 90% identical to SEQ ID NO: 11 or having an end terminal deletion of SEQ ID NO: 11, and which retains the ability to be recognized by T cells of a T cell population which recognize a peptide having a sequence of SEQ ID NO: 11.~~

108-111. (Canceled)